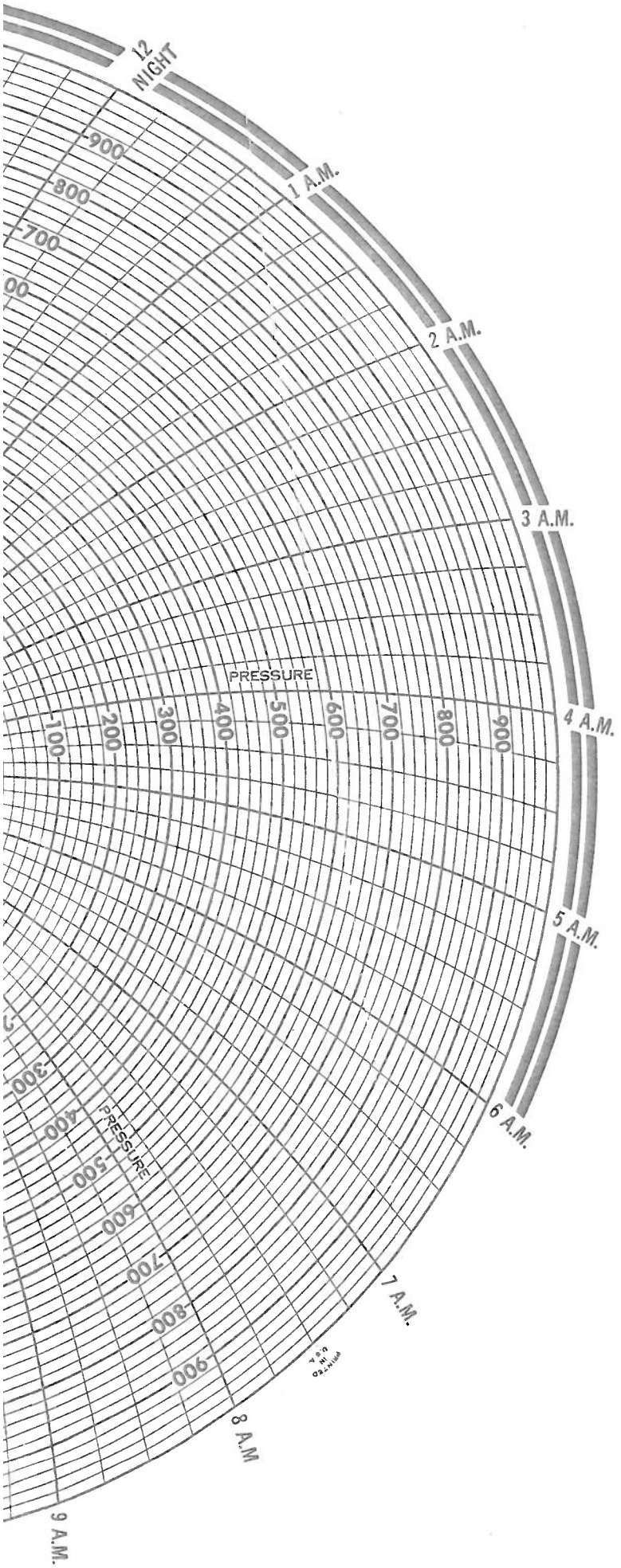
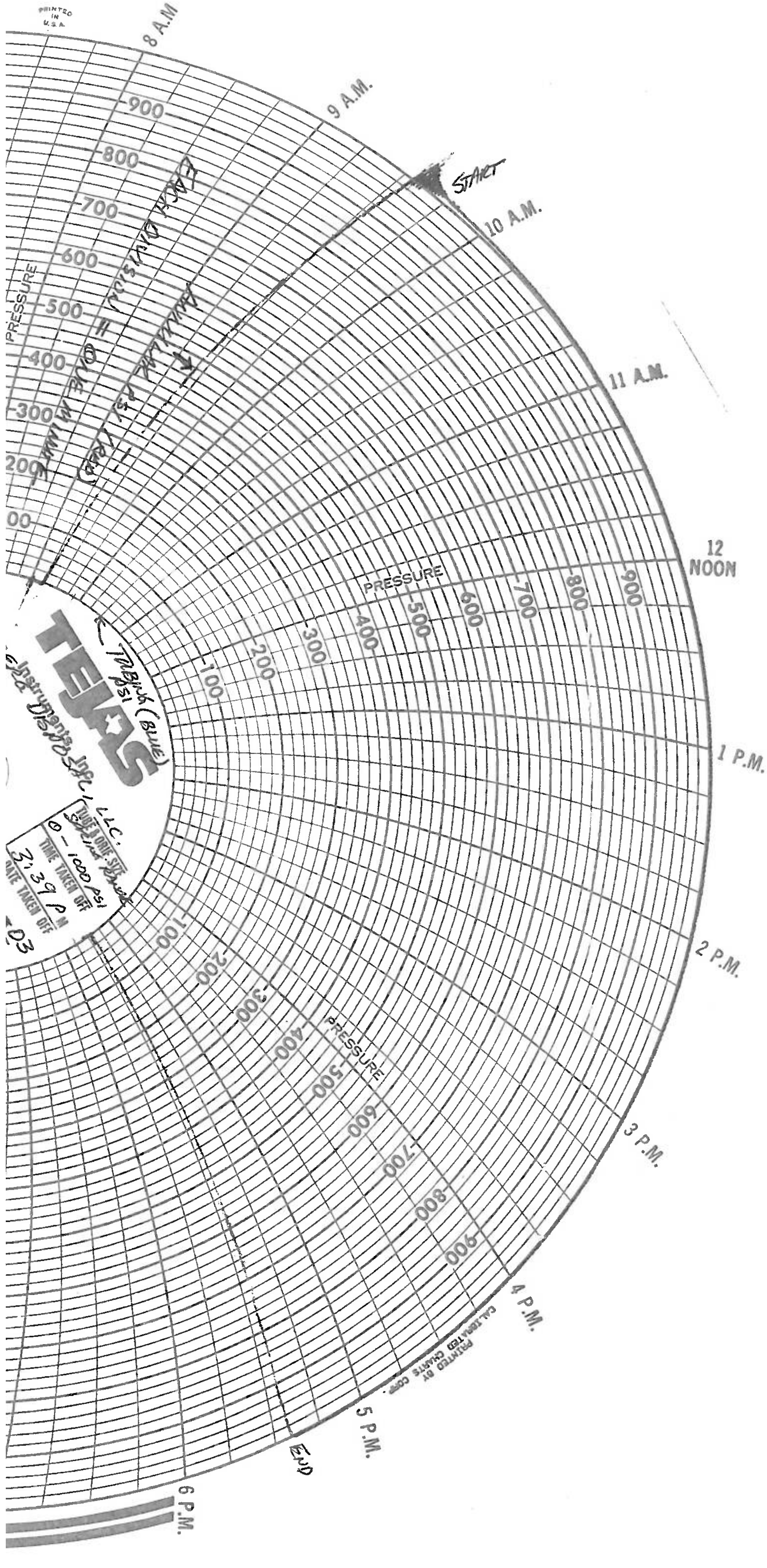
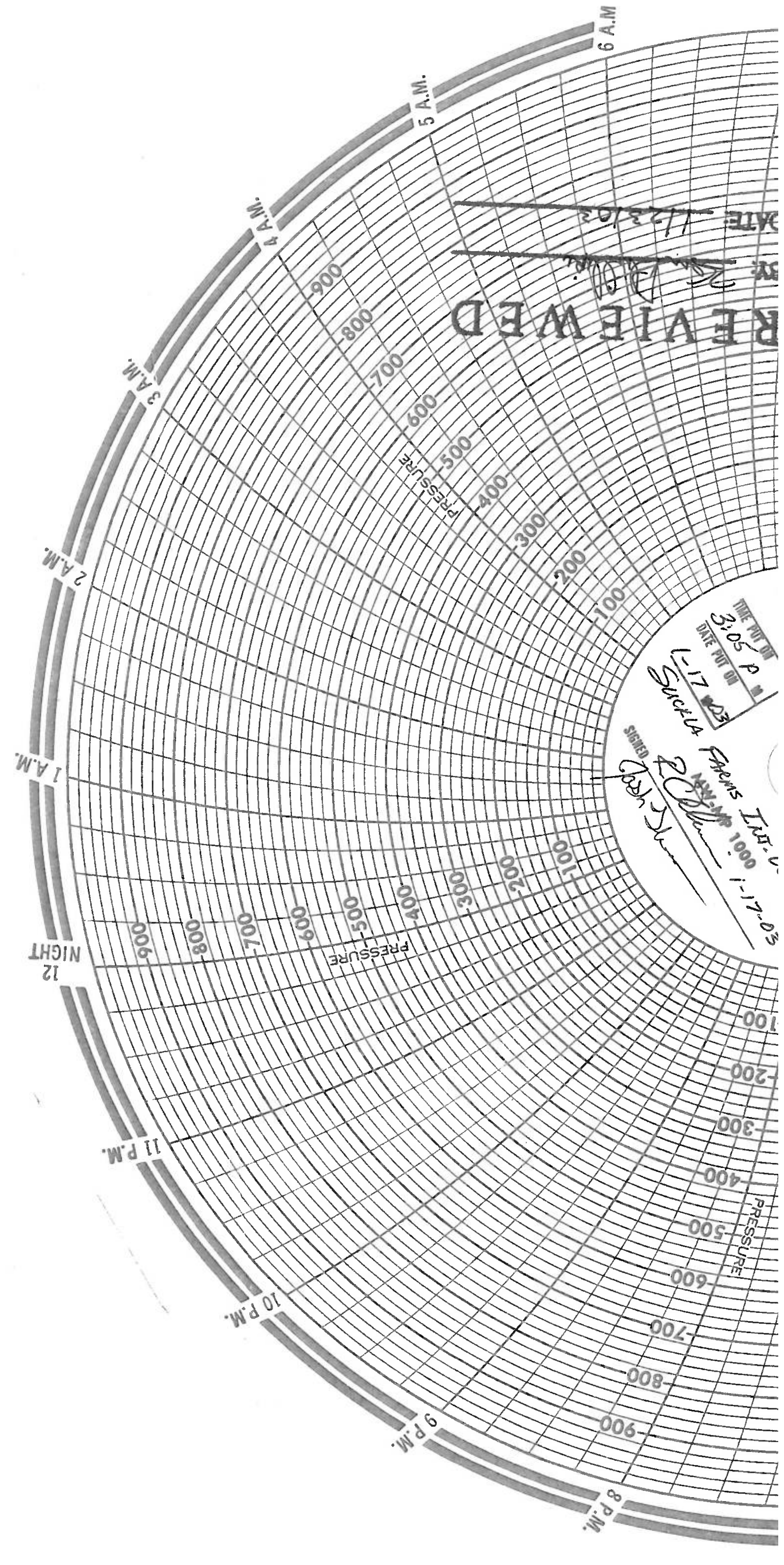
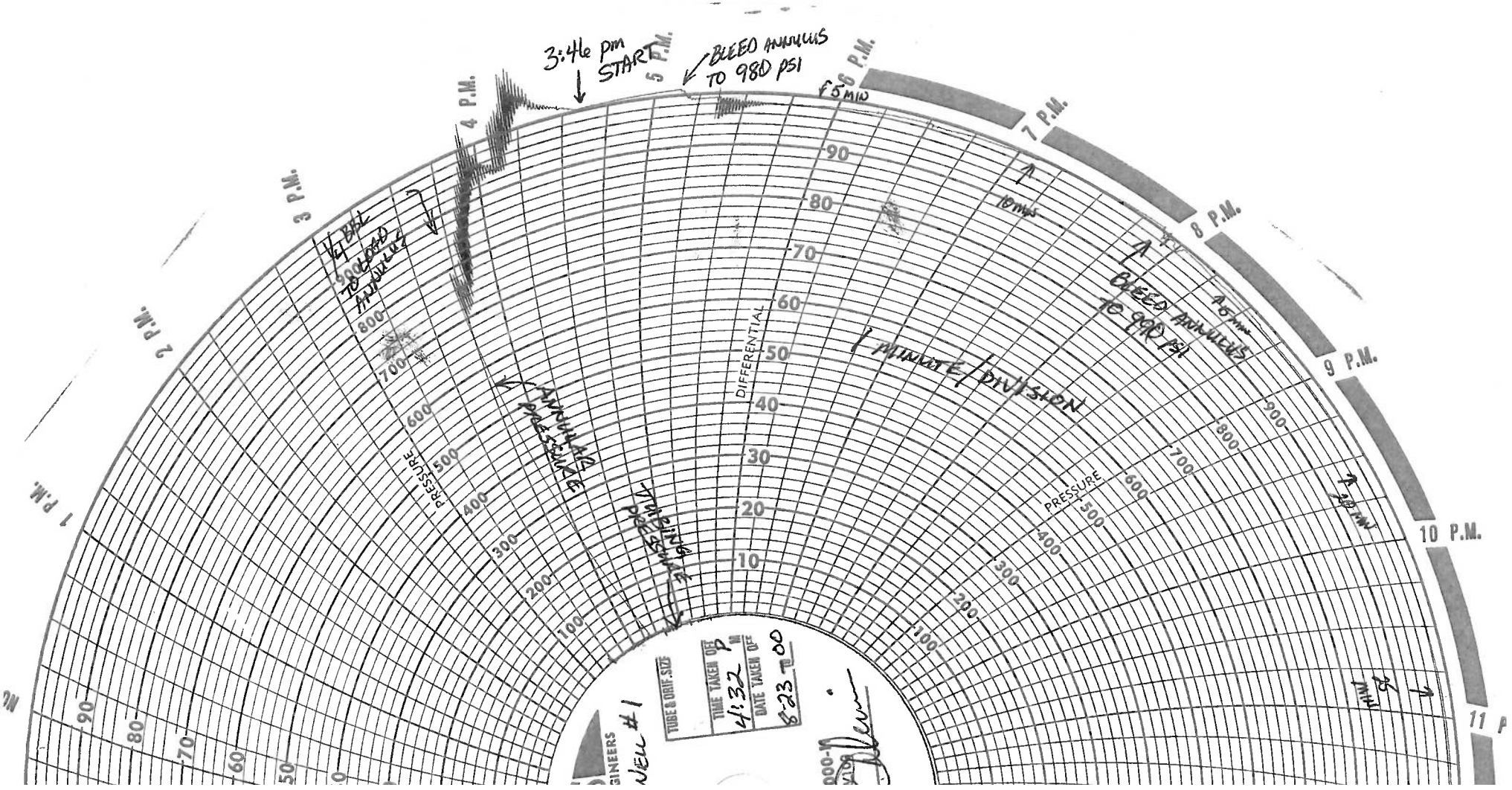

12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M
9 A.M.
PRESSURE
100
200
300
400
500
600
700
800
900
PRESSURE
900
800
700
600
500
400
300

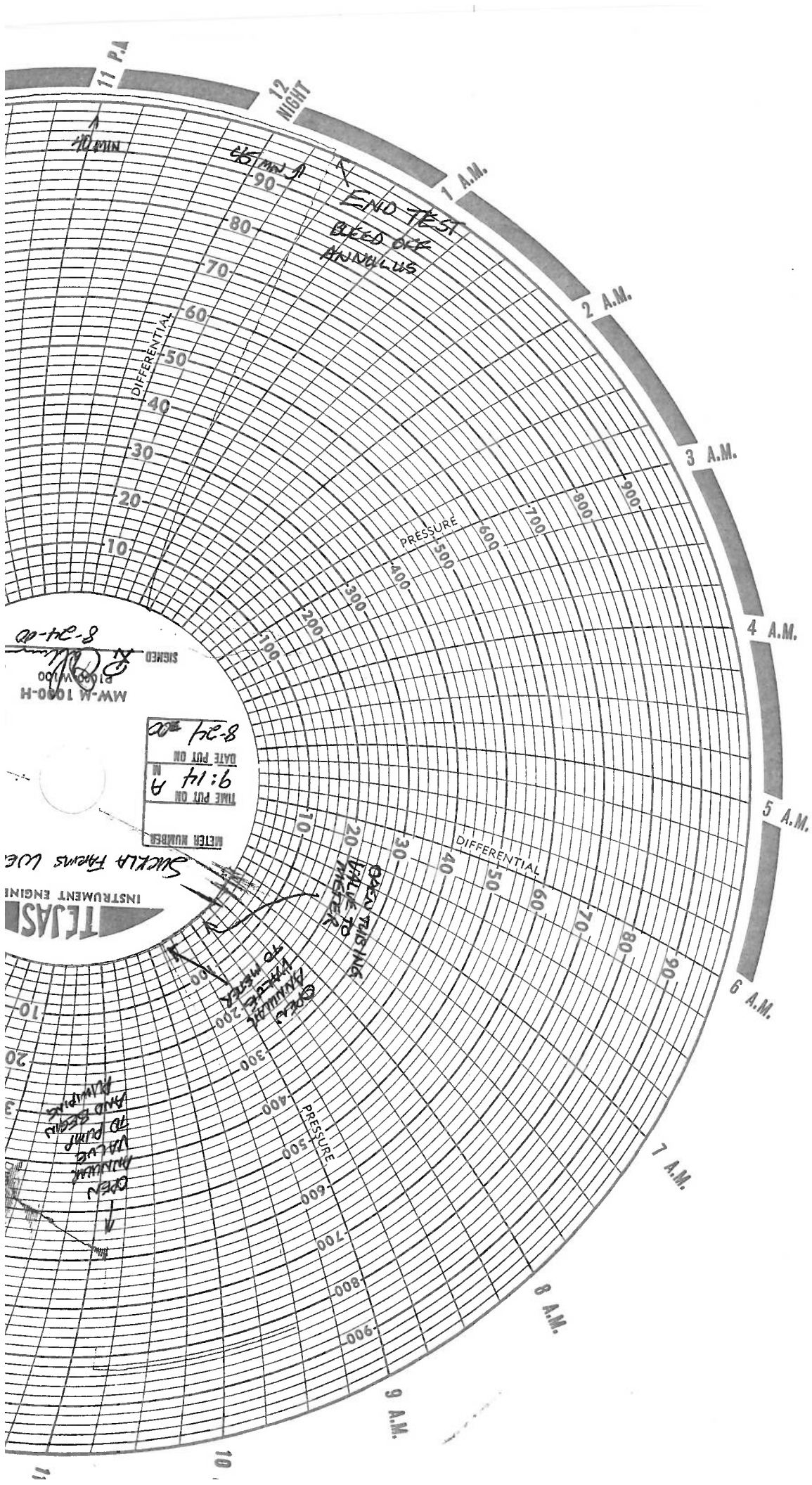
TEXAS
Instruments, Inc.
METER NUMBER
TUBE & ORIF. SIZE
TIME TAKEN OFF
11:30 AM
DATE TAKEN OFF
3-17-03
Sweetwater Disposal, LLC
MW-MP 1000
Sweetwater, Texas
Meter #1
SIGNED
3-17-03
PRESSURE
PRESSURE
PRESSURE
PRESSURE
PRINTED BY CALIBRATED CHARTS CORP.
APR 15 2003
Office of Environmental Compliance & Enforcement
Duplicate
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
5 P.M.
4 P.M.
3 P.M.
2 P.M.
1 P.M.
NOON
11 A.M.
10 A.M.
EACH DIVISION = ONE MINUTE
START
BLUE = TUBING PSI
RED = ANNULUS PSI


PRINTED IN U.S.A.
8 A.M
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
PRESSURE
100
200
300
400
500
600
700
800
900
START
END
EACH DIVISION = ONE MINUTE
ANNULAR PSI (RED)
TUBING (BLUE) PSI
TEJAS Instruments, Inc.
TIME TAKEN OFF
3:39 PM
DATE TAKEN OFF
0 - 1000 PSI
PRINTED BY CALIBRATED CHARTS CORP.


6 A.M.
5 A.M.
4 A.M.
3 A.M.
2 A.M.
1 A.M.
12 NIGHT
11 P.M.
10 P.M.
9 P.M.
8 P.M.
PRESSURE
100
200
300
400
500
600
700
800
900
REVIEWED
DATE 1/23/03
TIME PUT ON 3:05 P
DATE PUT ON 1-17-03
SIGNED
NW-MP 1000
1-17-03

12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
30 MIN
35 MIN
40 MIN
46 MIN
4:32 pm END
Bleed off Casing pressure
PRESSURE
DIFFERENTIAL
METER NUMBER
TIME PUT ON
3:40 P M
DATE PUT ON
8-23-00
SIGNED


3:46 pm START
BLEED ANNULUS TO 980 PSI
5 MIN
10 MIN
BLEED ANNULUS TO 900 PSI
1 MINUTE DIVISION
ANNULAR PRESSURE
TUBING PRESSURE
DIFFERENTIAL
PRESSURE
TUBE & ORIF. SIZE
TIME TAKEN OFF
4:32
DATE TAKEN OFF
8-23-00
ENGINEERS
Well #1
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.


11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10
DIFFERENTIAL
PRESSURE
END TEST
BLEED OFF
ANNULUS
OPEN THIEF
OPEN ANNULUS
VALVE TO PUMP
AND BLEED
PRESSURE
TEXAS
INSTRUMENT ENGINE
SIGNED
TIME PUT ON
DATE PUT ON
METER NUMBER
8-24-00

10 P.M.
9 P.M.
8 P.M.
7 P.M.
6 P.M.
5 P.M.
4 P.M.
3 P.M.
2 P.M.
1 P.M.
12 NOON
PRESSURE
DIFFERENTIAL
PRESSURE
35 MM
30 MM
25 MM
20 MM
15 MM
10 MM
5 MM
CLOSE ANNULUS VALVE
START RECIP. ANNULUS AT 1000 psi
TO PUMP

Mountain States ACCUTEST LABORATORIES

03/12/13

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg Tank

Accutest Job Number: D43888

Sampling Date: 02/28/13

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369
mhattel@msn.com; slaramesa@kpk.com

ATTN: Mike Hattel

Total number of pages in report: 29

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Brad Madadian
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW), UT (NELAP CO00049), TX (T104704511-12-1)

Sections: 1 2 3 4 5 6 7

Table of Contents

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Accutest Laboratories

Sample Summary

K.P. Kauffmann Company, Inc.

Job No: D43888

Wattenberg Tank

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
D43888-1	02/28/13	10:20 MH	02/28/13	AQ	Water	TANK-1
D43888-1F	02/28/13	10:20 MH	02/28/13	AQ	Water Filtered	TANK-1

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffmann Company, Inc.	**Job No**	D43888
Site:	Wattenberg Tank	**Report Date**	3/12/2013 8:37:20 AM

On 02/28/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.6 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D43888 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6010C

Matrix AQ **Batch ID:** MP9554

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D43888-1FMS, D43888-1FMSD, D43888-1FSDL were used as the QC samples for the metals analysis.
- The matrix spike /matrix spike duplicate(MS/MSD) recovery(s) of Calcium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- The matrix spike (MS) recovery(s) of Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Wet Chemistry By Method ASTM D287

Matrix ALL **Batch ID:** GN19234

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix AQ **Batch ID:** GP9529

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D43897-4MS were used as the QC samples for the HEM Oil and Grease analysis.
- The matrix spike (MS) recovery(s) of HEM Oil and Grease are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ **Batch ID:** GP9471

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D43745-7MS, D43745-7MSD, D43912-1DUP were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D43888-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix	AQ	Batch ID:	GN19121

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D43881-4DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix	AQ	Batch ID:	GP9481

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D43940-1DUP, D43946-1MS, D43946-1MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix	AQ	Batch ID:	GN19108

- D43888-1 for pH: Analysis performed past the required 15 minutes from collection time/holding time.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D43888
Account: K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank
Collected: 02/28/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D43888-1	**TANK-1**					
Chloride		10900	250		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		2080	4.8		mg/l	EPA 1664A
Nitrogen, Nitrate		7.0	1.0		mg/l	EPA 300.0/SW846 9056
Solids, Total Dissolved		18100	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0122				ASTM D287
Sulfate		506	50		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon		154	25		mg/l	SM 5310B-2011
pH [a]		6.97			su	SM4500HB+-2011/9040C
D43888-1F	**TANK-1**					
Calcium		356000	20000		ug/l	SW846 6010C
Magnesium		57100	10000		ug/l	SW846 6010C
Potassium		91500	50000		ug/l	SW846 6010C
Sodium		5840000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D43888-1	**Date Sampled:**	02/28/13
Matrix:	AQ - Water	**Date Received:**	02/28/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	10900	250	mg/l	500	03/01/13 18:05	JML	EPA 300.0/SW846 9056
HEM Oil and Grease	2080	4.8	mg/l	1	03/11/13	SWT	EPA 1664A
Nitrogen, Nitrate	7.0	1.0	mg/l	100	03/01/13 08:38	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite [a]	< 1.0	1.0	mg/l	250	03/01/13 15:05	JML	EPA 300.0/SW846 9056
Solids, Total Dissolved	18100	10	mg/l	1	03/04/13	JD	SM 2540C-2011
Specific Gravity by Hydromete	1.0122			1	03/11/13	MM	ASTM D287
Sulfate	506	50	mg/l	100	03/01/13 08:38	JML	EPA 300.0/SW846 9056
Total Organic Carbon	154	25	mg/l	25	03/04/13 14:05	JML	SM 5310B-2011
pH [b]	6.97		su	1	03/01/13 11:00	RW	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D43888-1F	**Date Sampled:**	02/28/13
Matrix:	AQ - Water Filtered	**Date Received:**	02/28/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	356000	20000	ug/l	5	03/01/13	03/05/13	JB	SW846 6010C [1]	SW846 3010A [2]
Magnesium	57100	10000	ug/l	5	03/01/13	03/05/13	JB	SW846 6010C [1]	SW846 3010A [2]
Potassium	91500	50000	ug/l	5	03/01/13	03/05/13	JB	SW846 6010C [1]	SW846 3010A [2]
Sodium	5840000	20000	ug/l	5	03/01/13	03/05/13	JB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3337
(2) Prep QC Batch: MP9554

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: D43888

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver | State: CO | Zip: 80202-4628
Project Contact: Susan Lara-Mesa | SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton | State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	MeOH	DI/H2O	NaOH	None	H2SO4	MeOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC	LAB USE ONLY
	TANK - I		2/28/13	1020	MDH	LIQ	6	X			X					X	X	X	X	X	X	X	01

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days)

X Std. 10 Business Days
Approved By:/ Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A"
- Commercial "B"
- NJ Reduced
- NJ Full
- X Hard Copy
- FULL CLP
- NYASP Category A
- NYASP Category B
- State Forms
- X PDF

Comments / Remarks

NO Hard Copy
PDF copy to Mike Hattel with APEX at mhattel@msn.com
PDF copy to Susana Lara-Mesa w KPK at SLaraMesa@kpk.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		2/28/13 1136			2/28/13 1410	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # HD100	Preserved where applicable	On Ice / Cooler Temp. 2.6

5.1 5

D43888: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D43888 **Client:** K.P.KAUFFMAN COMPANY INC. **Immediate Client Services Action Required:** No

Date / Time Received: 2/28/2013 2:15:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTEMBERG TANK **Airbill #'s:** HD-Co

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	
2. Trip Blank listed on COC:	☐		☐	
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume rec'd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021
4036 Youngfield Street
F: (303) 425-6854
Wheat Ridge, CO
www/accutest.com

5.1 5

D43888: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/01/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	9.6	25		
Antimony	30	1.7	3.6		
Arsenic	25	4.4	8.4		
Barium	10	.1	1.8		
Beryllium	10	1.3	3.1		
Boron	50	1	4.4		
Cadmium	10	.6	.59		
Calcium	400	5.4	16	15.5	<400
Chromium	10	.3	.56		
Cobalt	5.0	.4	.42		
Copper	10	1.2	3		
Iron	70	1.2	20		
Lead	50	1.9	2.9		
Lithium	2.0	.5			
Magnesium	200	6.5	22	-4.6	<200
Manganese	5.0	1.2	1.2		
Molybdenum	10	2.1	2.1		
Nickel	30	.5	.57		
Phosphorus	100	14	59		
Potassium	1000	61	150	-160	<1000
Selenium	50	4.8	11		
Silicon	50	2.9			
Silver	30	.4	.98		
Sodium	400	5.9	98	46.2	<400
Strontium	5.0	.04	1.5		
Thallium	10	2.9	8.6		
Tin	50	12			
Titanium	10	.1			
Uranium	50	2.2	4.6		
Vanadium	10	.2	.48		
Zinc	30	.5	2.4		

Associated samples MP9554: D43888-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/01/13

Metal	D43888-1F Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron	anr				
Cadmium	anr				
Calcium	356000	679000	250000	129.2N(a	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	anr				
Lithium					
Magnesium	57100	320000	250000	105.2	75-125
Manganese	anr				
Molybdenum	anr				
Nickel	anr				
Phosphorus					
Potassium	114000	357000	250000	106.2	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	5840000	6160000	250000	128.0(b)	75-125
Strontium	anr				
Thallium	anr				
Tin	anr				
Titanium					
Uranium					
Vanadium	anr				
Zinc	anr				

Associated samples MP9554: D43888-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.1.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/01/13

Metal	D43888-1F Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron	anr					
Cadmium	anr					
Calcium	356000	672000	250000	126.4N(a	1.0	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	57100	337000	250000	112.0	5.2	20
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium	114000	381000	250000	115.8	6.5	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	5840000	6680000	250000	336.0(b)	8.1	20
Strontium	anr					
Thallium	anr					
Tin	anr					
Titanium						
Uranium						
Vanadium	anr					
Zinc	anr					

Associated samples MP9554: D43888-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/01/13

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	28100	25000	112.4	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	24600	25000	98.4	80-120
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium	25100	25000	100.4	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	24500	25000	98.0	80-120
Strontium	anr			
Thallium	anr			
Tin	anr			
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP9554: D43888-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/01/13

Metal	D43888-1F Original	SDL 5:25	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	35600	34600	2.8	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	6620	5190	9.1	0-10
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium	9150	8910	2.7	0-10
Selenium	anr			
Silicon				
Silver	anr			
Sodium	584000	560000	4.1	0-10
Strontium	anr			
Thallium	anr			
Tin	anr			
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP9554: D43888-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9554
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.4

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP9471/GN19116	0.050	0.0	mg/l	20	20.5	102.5	90-110%
Chloride	GP9471/GN19116	0.50	0.23	mg/l	20	19.8	99.0	90-110%
Fluoride	GP9471/GN19116	0.10	0.0	mg/l	10	9.58	95.8	90-110%
HEM Oil and Grease	GP9529/GN19247	5.0	0.0	mg/l	40	34.3	85.8	78-114%
Nitrogen, Nitrate	GP9471/GN19116	0.010	0.0	mg/l	4.52	4.36	96.5	90-110%
Nitrogen, Nitrite	GP9471/GN19116	0.0040	0.0	mg/l	6.09	6.19	101.6	90-110%
Solids, Total Dissolved	GN19121	10	0.0	mg/l	400	402	100.5	90-110%
Sulfate	GP9471/GN19116	0.50	0.0	mg/l	30	29.7	99.0	90-110%
Total Organic Carbon	GP9481/GN19135	1.0	0.0	mg/l	8.82	8.69	98.5	90-110%
pH	GN19108			su	8.00	7.98	99.8	99.3-100.7%

Associated Samples:
Batch GP9471: D43888-1
Batch GP9481: D43888-1
Batch GP9529: D43888-1
Batch GN19108: D43888-1
Batch GN19121: D43888-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP9529/GN19247	mg/l	40	35.7	4.0	20%

Associated Samples:
Batch GP9529: D43888-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Bromide	GP9471/GN19116	D43912-1	mg/l	0.14	0.14	0.0	0-20%
Chloride	GP9471/GN19116	D43912-1	mg/l	10.5	10.5	0.0	0-20%
Fluoride	GP9471/GN19116	D43912-1	mg/l	0.24	0.23	4.3	0-20%
Nitrogen, Nitrate	GP9471/GN19116	D43912-1	mg/l	4.7	4.7	0.0	0-20%
Nitrogen, Nitrite	GP9471/GN19116	D43912-1	mg/l	0.0	0.0	0.0	0-20%
Solids, Total Dissolved	GN19121	D43881-4	mg/l	128	120	6.5	0-20%
Sulfate	GP9471/GN19116	D43912-1	mg/l	23.8	23.8	0.0	0-20%
Total Organic Carbon	GP9481/GN19135	D43940-1	mg/l	198	198	0.0	0-20%

Associated Samples:
Batch GP9471: D43888-1
Batch GP9481: D43888-1
Batch GN19121: D43888-1
(*) Outside of QC limits

7.3
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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP9471/GN19116	D43745-7	mg/l	1.4	50	54.8	106.8	80-120%
Chloride	GP9471/GN19116	D43745-7	mg/l	290	200	502	106.0	80-120%
Fluoride	GP9471/GN19116	D43745-7	mg/l	1.1	50	51.1	100.0	80-120%
HEM Oil and Grease	GP9529/GN19247	D43897-4	mg/l	3.9	40	32.3	71.0N(a)	78-114%
Nitrogen, Nitrate	GP9471/GN19116	D43745-7	mg/l	1.6	11.3	13.0	100.9	80-120%
Nitrogen, Nitrite	GP9471/GN19116	D43745-7	mg/l	0.0	6.09	6.1	100.2	80-120%
Sulfate	GP9471/GN19116	D43745-7	mg/l	77.5	200	285	103.8	80-120%
Total Organic Carbon	GP9481/GN19135	D43946-1	mg/l	0.58	10	10.7	101.2	80-120%

Associated Samples:
Batch GP9471: D43888-1
Batch GP9481: D43888-1
Batch GP9529: D43888-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

7.4

7

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D43888
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP9471/GN19116	D43745-7	mg/l	1.4	50	53.5	2.4	20%
Chloride	GP9471/GN19116	D43745-7	mg/l	290	200	496	1.2	20%
Fluoride	GP9471/GN19116	D43745-7	mg/l	1.1	50	49.9	2.4	20%
Nitrogen, Nitrate	GP9471/GN19116	D43745-7	mg/l	1.6	11.3	12.8	1.6	20%
Nitrogen, Nitrite	GP9471/GN19116	D43745-7	mg/l	0.0	6.09	6.1	0.0	20%
Sulfate	GP9471/GN19116	D43745-7	mg/l	77.5	200	280	1.8	20%
Total Organic Carbon	GP9481/GN19135	D43946-1	mg/l	0.58	10	10.7	0.0	20%

Associated Samples:
Batch GP9471: D43888-1
Batch GP9481: D43888-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.5
7

Mountain States ACCUTEST LABORATORIES

04/05/13

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg Tank

Accutest Job Number: D44702

Sampling Date: 03/26/13

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369
mhattel@msn.com; slaramesa@kpk.com

ATTN: Mike Hattel

Total number of pages in report: 29

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Brad Madadian
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW), UT (NELAP CO00049), TX (T104704511-12-1)

Sections: 1 2 3 4 5 6 7

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Accutest Laboratories

Sample Summary

K.P. Kauffmann Company, Inc.

Job No: D44702

Wattenberg Tank

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D44702-1	03/26/13	07:55 MH	03/26/13	AQ	Water	TANK-I
D44702-1F	03/26/13	07:55 MH	03/26/13	AQ	Water Filtered	TANK-I

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: K.P. Kauffmann Company, Inc. **Job No** D44702

Site: Wattenberg Tank **Report Date** 4/5/2013 1:54:35 PM

On 03/26/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.7 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D44702 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6010C

Matrix AQ **Batch ID:** MP9751

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D44592-1MS, D44592-1MSD, D44592-1SDL were used as the QC samples for the metals analysis.
- The matrix spike (MS) recovery(s) of Calcium, Potassium, Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Wet Chemistry By Method ASTM D287

Matrix ALL **Batch ID:** GN19624

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix AQ **Batch ID:** GP9712

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D44711-1MS were used as the QC samples for the HEM Oil and Grease analysis.
- The matrix spike (MS) recovery(s) of HEM Oil and Grease are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ **Batch ID:** GP9661

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D44521-1DUP, D44715-1MS, D44715-1MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.

Wet Chemistry By Method SM 2540C-2011

Matrix AQ **Batch ID:** GN19561

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D44724-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix	AQ	Batch ID:	GP9665

- All samples were prepared and analzyed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D44605-1DUP, D44605-1MS, D44605-1MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix	AQ	Batch ID:	GN19528

- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: D44702-1 Analysis performed past the required 15 minutes from collection time/holding time.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D44702
Account: K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank
Collected: 03/26/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D44702-1	**TANK-I**					
Chloride		8310	250		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		41.7	5.0		mg/l	EPA 1664A
Nitrogen, Nitrate		1.3	0.50		mg/l	EPA 300.0/SW846 9056
Nitrogen, Nitrite		6.0	0.20		mg/l	EPA 300.0/SW846 9056
Solids, Total Dissolved		14100	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0057				ASTM D287
Sulfate		521	25		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon		625	25		mg/l	SM 5310B-2011
pH [a]		6.85			su	SM4500HB+-2011/9040C
D44702-1F	**TANK-I**					
Calcium		284000	20000		ug/l	SW846 6010C
Magnesium		39800	10000		ug/l	SW846 6010C
Potassium		449000	50000		ug/l	SW846 6010C
Sodium		4040000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-I		
Lab Sample ID:	D44702-1	**Date Sampled:**	03/26/13
Matrix:	AQ - Water	**Date Received:**	03/26/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	8310	250	mg/l	500	03/27/13 12:09	JML	EPA 300.0/SW846 9056
HEM Oil and Grease	41.7	5.0	mg/l	1	04/05/13	SWT	EPA 1664A
Nitrogen, Nitrate	1.3	0.50	mg/l	50	03/27/13 09:33	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite	6.0	0.20	mg/l	50	03/27/13 09:33	JML	EPA 300.0/SW846 9056
Solids, Total Dissolved	14100	10	mg/l	1	04/02/13	RW	SM 2540C-2011
Specific Gravity by Hydromete	1.0057			1	04/05/13	MM	ASTM D287
Sulfate	521	25	mg/l	50	03/27/13 09:33	JML	EPA 300.0/SW846 9056
Total Organic Carbon	625	25	mg/l	25	03/28/13 17:59	GH	SM 5310B-2011
pH [a]	6.85		su	1	03/28/13 15:15	AK	SM4500HB+-2011/9040C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-I		
Lab Sample ID:	D44702-1F	**Date Sampled:**	03/26/13
Matrix:	AQ - Water Filtered	**Date Received:**	03/26/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	284000	20000	ug/l	5	03/29/13	03/29/13	JB	SW846 6010C [1]	SW846 3010A [2]
Magnesium	39800	10000	ug/l	5	03/29/13	03/29/13	JB	SW846 6010C [1]	SW846 3010A [2]
Potassium	449000	50000	ug/l	5	03/29/13	03/29/13	JB	SW846 6010C [1]	SW846 3010A [2]
Sodium	4040000	20000	ug/l	5	03/29/13	03/29/13	JB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3423
(2) Prep QC Batch: MP9751

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

D44702

FED-EX Tracking # | Bottle Order Control #

Accutest Quote # | Accutest Job # D4469[illegible] 3/26/13

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susan Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	MeOH	DI/NO3	H2SO4	NONE	Na2S2O3	MEOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC	LAB USE ONLY
	TANK - I		3/26/13	0755	MDH	LIQ	6	X			X					X	X	X	X	X	X	X	.01

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days)

- [X] Std. 10 Business Days
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

Approved By:/ Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] NJ Reduced
- [ ] NJ Full
- [x] Hard Copy
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] PDF

Comments / Remarks

only one bottle for 0&G (TP)

NO Hard Copy

PDF copy to Mike Hattel with APEX at mhattel@msn.com

PDF copy to Susana Lara-Mesa w KPK at SLaraMesa@kpk.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	[signature]	3/26/13 0901	[signature]	2 [signature]	3/26/13 1237	2 Jacob Porter 3/26/13 1255
3	Relinquished by:	Date Time:	Received By:	4 Relinquished by:	Date Time:	4 Received By:
5	Relinquished by:	Date Time:	5 Received By:	Custody Seal # HDCO	Preserved where applicable	On Ice Cooler Temp. 2.7

5.1 5

D44702: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D44702 **Client:** K.P. KAUFFMAN COMPANY INC. **Immediate Client Services Action Required:** No

Date / Time Received: 3/26/2013 12:55:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTENBERG TANK **Airbill #'s:** HD

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservation	Y or N		N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y or N	
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y or N	
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y or N		N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

D44702: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	9.6	25		
Antimony	30	1.7	3.6		
Arsenic	25	4.4	8.4		
Barium	10	.1	1.8		
Beryllium	10	1.3	3.1		
Boron	50	1	4.4		
Cadmium	10	.6	.59		
Calcium	400	5.4	16	10.9	<400
Chromium	10	.3	.56		
Cobalt	5.0	.4	.42		
Copper	10	1.2	3		
Iron	70	1.2	20		
Lead	50	1.9	2.9		
Lithium	2.0	.5			
Magnesium	200	6.5	22	-0.70	<200
Manganese	5.0	1.2	1.2		
Molybdenum	10	2.1	2.1		
Nickel	30	.5	.57		
Phosphorus	100	14	59		
Potassium	1000	61	150	141	<1000
Selenium	50	4.8	11		
Silicon	50	2.9			
Silver	30	.4	.98		
Sodium	400	5.9	98	79.3	<400
Strontium	5.0	.04	1.5		
Thallium	10	2.9	8.6		
Tin	50	12			
Titanium	10	.1			
Uranium	50	2.2	4.6		
Vanadium	10	.2	.48		
Zinc	30	.5	2.4		

Associated samples MP9751: D44702-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/13

Metal	D44592-1 Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	582000	555000	50000	-54.0(a)	75-125
Chromium					
Cobalt					
Copper					
Iron	anr				
Lead					
Lithium					
Magnesium	18200	65900	50000	93.6	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus	anr				
Potassium	311000	347000	50000	72.0 (a)	75-125
Selenium					
Silicon	anr				
Silver					
Sodium	565000	597000	50000	32.0 (a)	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP9751: D44702-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.1.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/13

Metal	D44592-1 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	582000	581000	50000	-2.0 (a)	10.4	20
Chromium						
Cobalt						
Copper						
Iron	anr					
Lead						
Lithium						
Magnesium	18200	67300	50000	96.4	10.7	20
Manganese						
Molybdenum						
Nickel						
Phosphorus	anr					
Potassium	311000	358000	50000	94.0	6.2	20
Selenium						
Silicon	anr					
Silver						
Sodium	565000	617000	50000	72.0 (a)	7.3	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP9751: D44702-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/13

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	52900	50000	105.8	80-120
Chromium				
Cobalt				
Copper				
Iron	anr			
Lead				
Lithium				
Magnesium	51600	50000	103.2	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus	anr			
Potassium	51800	50000	103.6	80-120
Selenium				
Silicon	anr			
Silver				
Sodium	50600	50000	101.2	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP9751: D44702-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/13

Metal	D44592-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	582000	567000	2.5	0-10
Chromium				
Cobalt				
Copper				
Iron	anr			
Lead				
Lithium				
Magnesium	18200	20500	7.1	0-10
Manganese				
Molybdenum				
Nickel				
Phosphorus	anr			
Potassium	311000	331000	6.3	0-10
Selenium				
Silicon	anr			
Silver				
Sodium	565000	623000	7.2	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP9751: D44702-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP9751
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.4
6

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP9661/GN19509	0.050	0.0	mg/l	20	21.1	105.5	90-110%
Chloride	GP9661/GN19509	0.50	0.0	mg/l	20	21.4	107.0	90-110%
Fluoride	GP9661/GN19509	0.10	0.0	mg/l	10	10.4	104.0	90-110%
HEM Oil and Grease	GP9712/GN19610	5.0	0.0	mg/l	40	35.1	87.8	78-114%
Nitrogen, Nitrate	GP9661/GN19509	0.010	0.0	mg/l	4.52	4.65	102.9	90-110%
Nitrogen, Nitrite	GP9661/GN19509	0.0040	0.0	mg/l	6.09	6.56	107.7	90-110%
Phosphate, Ortho	GP9661/GN19509	0.065	0.0	mg/l	9.78	10.3	105.3	90-110%
Solids, Total Dissolved	GN19561	10	0.0	mg/l	400	403	100.8	90-110%
Sulfate	GP9661/GN19509	0.50	0.0	mg/l	30	31.6	105.3	90-110%
Total Organic Carbon	GP9665/GN19515	1.0	0.0	mg/l	8.82	8.82	100.0	90-110%
pH	GN19528			su	8.00	8.00	100.0	99.3-100.7%

Associated Samples:
Batch GP9661: D44702-1
Batch GP9665: D44702-1
Batch GP9712: D44702-1
Batch GN19528: D44702-1
Batch GN19561: D44702-1
(*) Outside of QC limits

7.1.7

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP9712/GN19610	mg/l	40	37.7	7.1	20%

Associated Samples:
Batch GP9712: D44702-1
(*) Outside of QC limits

7.2
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Bromide	GP9661/GN19509	D44521-1	mg/l	0.0	0.0	0.0	0-20%
Chloride	GP9661/GN19509	D44521-1	mg/l	73.4	73.8	0.5	0-20%
Fluoride	GP9661/GN19509	D44521-1	mg/l	0.85	0.88	3.5	0-20%
Nitrogen, Nitrate	GP9661/GN19509	D44521-1	mg/l	2.2	2.3	4.4	0-20%
Nitrogen, Nitrite	GP9661/GN19509	D44521-1	mg/l	0.18	0.16	11.8	0-20%
Phosphate, Ortho	GP9661/GN19509	D44521-1	mg/l	0.0	0.0	0.0	0-20%
Solids, Total Dissolved	GN19561	D44724-1	mg/l	692	728	5.1	0-20%
Sulfate	GP9661/GN19509	D44521-1	mg/l	49.7	50.2	1.0	0-20%
Total Organic Carbon	GP9665/GN19515	D44605-1	mg/l	1.4	1.4	0.0	0-20%

Associated Samples:
Batch GP9661: D44702-1
Batch GP9665: D44702-1
Batch GN19561: D44702-1
(*) Outside of QC limits

7.3
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP9661/GN19509	D44715-1	mg/l	0.16	2.5	2.8	105.6	80-120%
Chloride	GP9661/GN19509	D44715-1	mg/l	7.4	10	18.1	107.0	80-120%
Fluoride	GP9661/GN19509	D44715-1	mg/l	2.3	2.5	4.9	104.0	80-120%
HEM Oil and Grease	GP9712/GN19610	D44711-1	mg/l	7.2	40	35.5	70.8N(a)	78-114%
Nitrogen, Nitrate	GP9661/GN19509	D44715-1	mg/l	0.0	0.565	0.58	102.7	80-120%
Nitrogen, Nitrite	GP9661/GN19509	D44715-1	mg/l	0.0	0.305	0.32	104.9	80-120%
Phosphate, Ortho	GP9661/GN19509	D44715-1	mg/l	0.0	0.815	0.88	108.0	80-120%
Sulfate	GP9661/GN19509	D44715-1	mg/l	0.37	10	11.1	107.3	80-120%
Total Organic Carbon	GP9665/GN19515	D44605-1	mg/l	1.4	10	11.6	102.0	80-120%

Associated Samples:
Batch GP9661: D44702-1
Batch GP9665: D44702-1
Batch GP9712: D44702-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

7.4

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D44702
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP9661/GN19509	D44715-1	mg/l	0.16	2.5	2.8	0.0	20%
Chloride	GP9661/GN19509	D44715-1	mg/l	7.4	10	18.2	0.6	20%
Fluoride	GP9661/GN19509	D44715-1	mg/l	2.3	2.5	4.9	0.0	20%
Nitrogen, Nitrate	GP9661/GN19509	D44715-1	mg/l	0.0	0.565	0.59	1.7	20%
Nitrogen, Nitrite	GP9661/GN19509	D44715-1	mg/l	0.0	0.305	0.32	0.0	20%
Phosphate, Ortho	GP9661/GN19509	D44715-1	mg/l	0.0	0.815	0.90	2.2	20%
Sulfate	GP9661/GN19509	D44715-1	mg/l	0.37	10	11.2	0.9	20%
Total Organic Carbon	GP9665/GN19515	D44605-1	mg/l	1.4	10	11.6	0.0	20%

Associated Samples:
Batch GP9661: D44702-1
Batch GP9665: D44702-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.5
7